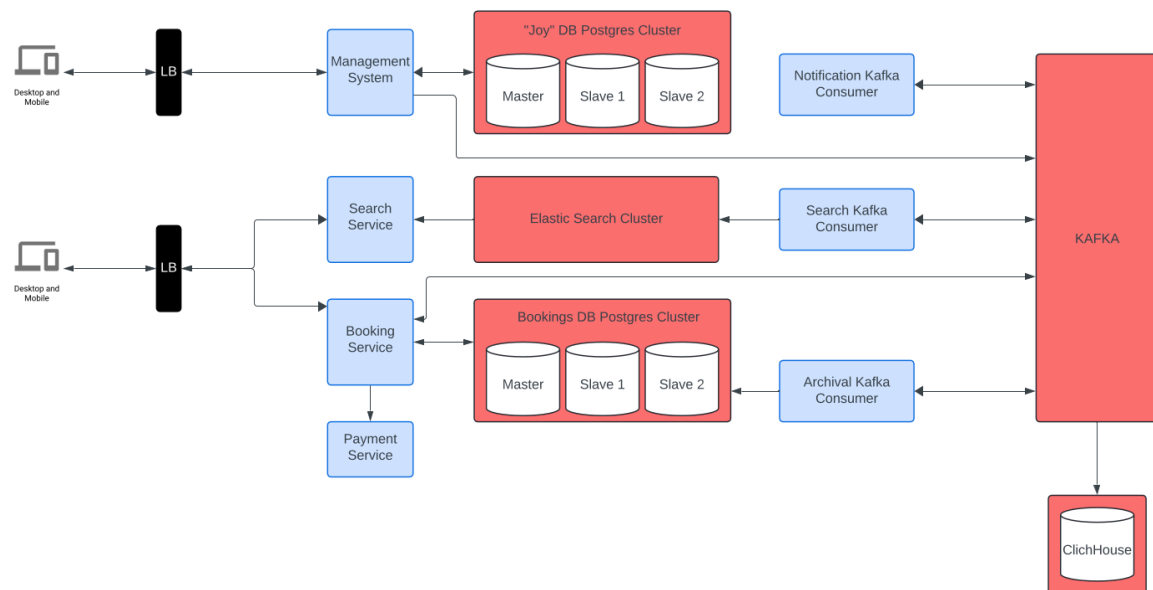# Technical Requirements for the "JoyTop" Project

1. Full Name of Work

Design, development, implementation, and technical support of the platform for booking and renting venues for events, hackathons, conferences, photoshoots, art studios, and coworking spaces.

2. Team Name and Technology Stack

- Team: CTRL+TEAM

Caption: The Proposed System Design, of the system that is capable to handle high loads and perform all the listed tasks.

- Technology Stack of MVP:
  - Backend: Flutter+Firebase
  - Frontend: Flutter
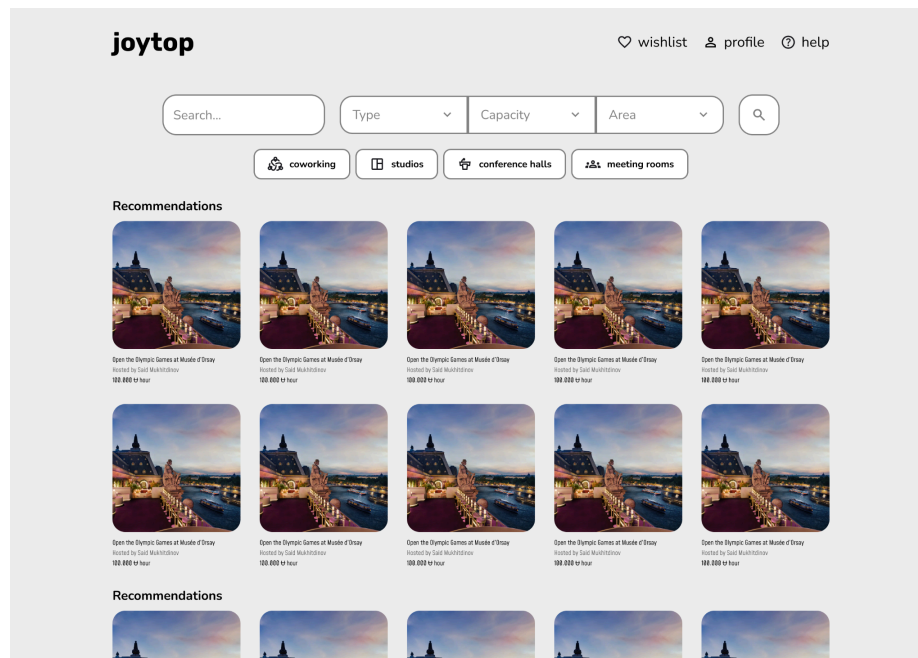 - Database: Firestore

- Proposed Technology Stack:
  - Backend: Python (Django, Django REST Framework)
  - Frontend: Flutter
  - Database: PostgreSQL
  - Data Storage: ClickHouse (for logs)

- Infrastructure: Docker, Kubernetes, Nginx, AWS (S3, EC2)
- Analytics and Search: Elasticsearch, Kibana
- API: REST, GraphQL
- ML: Recommendation System
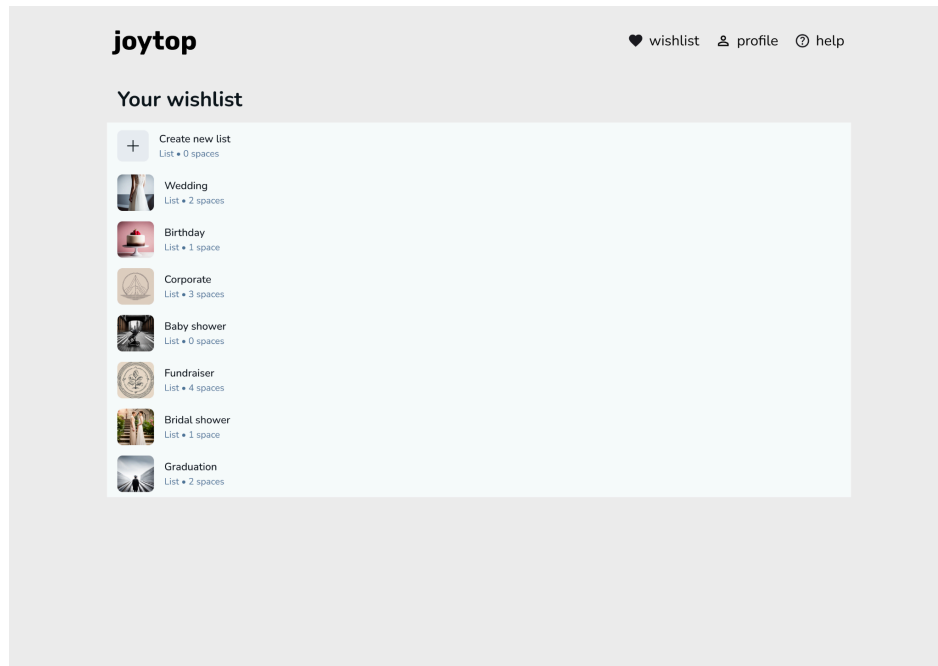- Other Systems: Cold start, Paid promotion, Ranking System, DSSM.

3. Project Purpose

The platform is designed to simplify the process of finding and booking venues for events. Users can search, compare, and book venues for their events, while venue owners can add their properties, manage bookings, and receive payments through the platform.
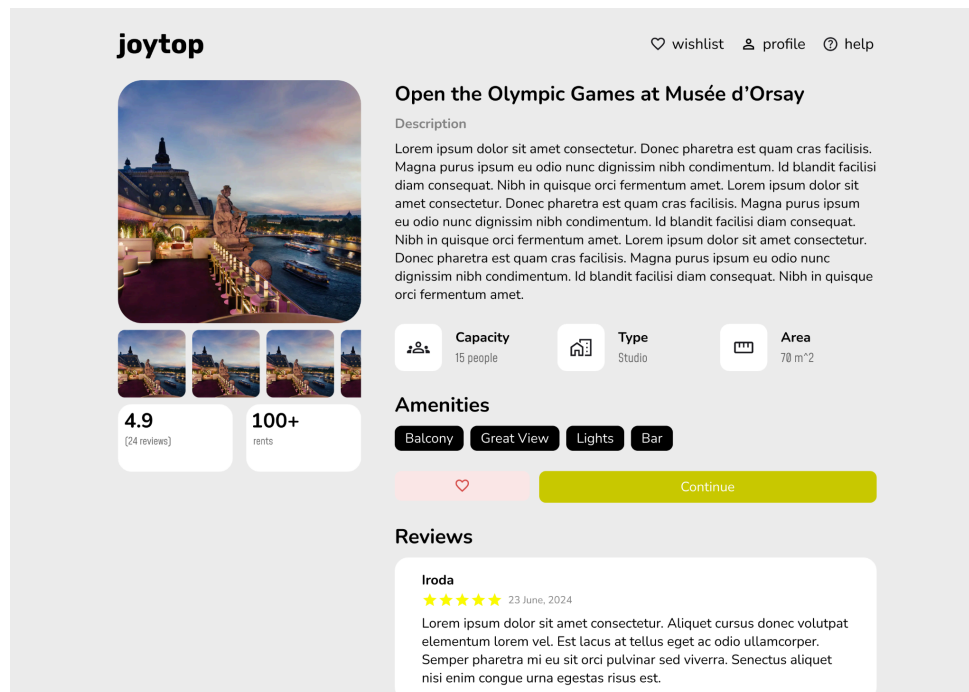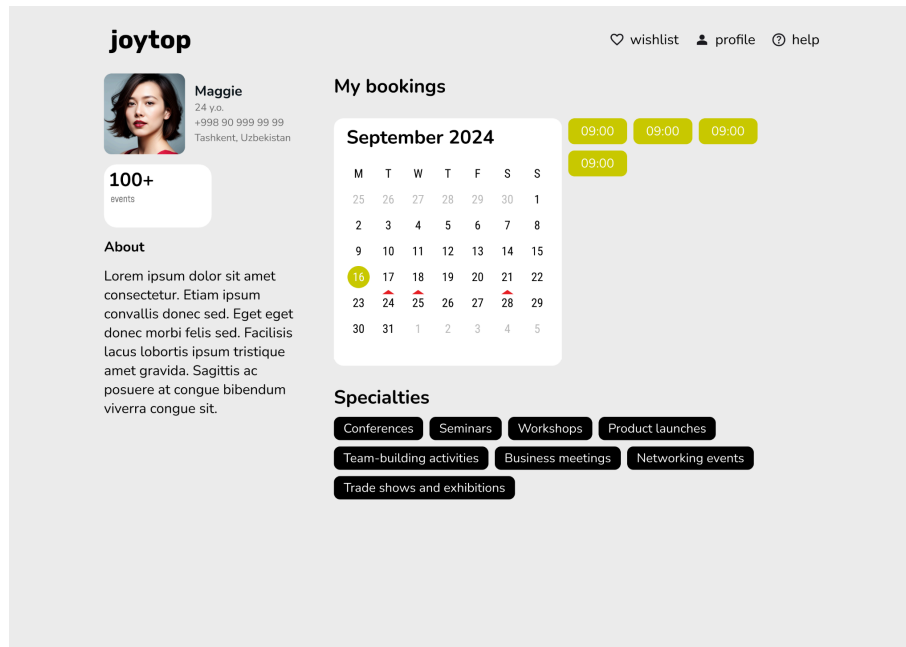
4. Conceptual Model

Homepage: venue search by event types, capacity of people, area, popular venues, recommended events and promoted spaces.
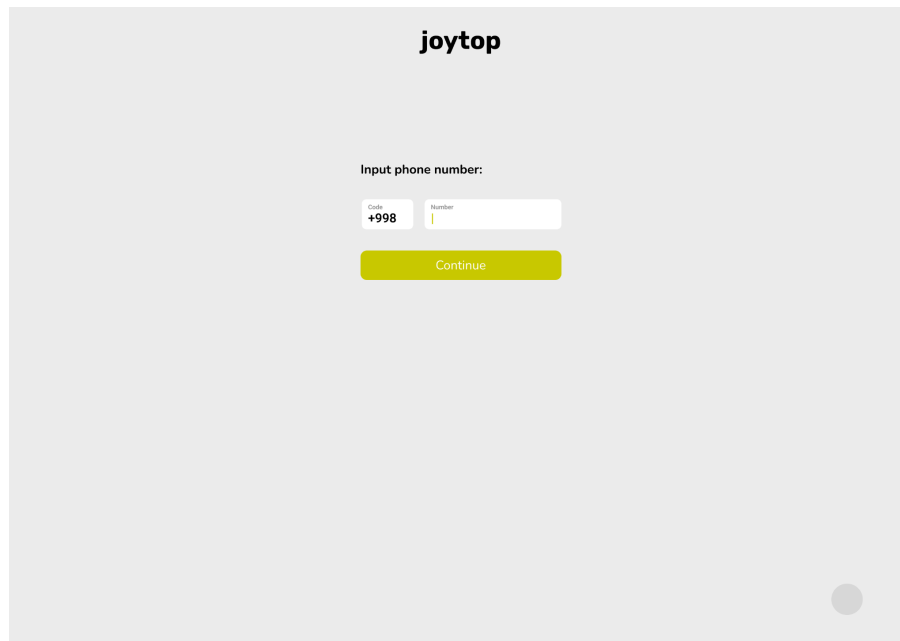
Wishlist: list of venues with filters by categories (e.g., conference rooms, photo studios, art studios), that you wish to book.

Venue Page: detailed information about the venue, photos, available dates, prices, owner, reviews and so on.

joytop

Maggie
24 y.o.
+998 90 999 99 99
Tashkent, Uzbekistan

100+
events

About

Lorem ipsum dolor sit amet consectetur. Etiam ipsum convallis donec sed. Eget eget donec morbi felis sed. Facilisis lacus lobortis ipsum tristique amet gravida. Sagittis ac posuere at congue bibendum viverra congue sit.

My bookings

September 2024

M	T	W	T	F	S	S
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

09:00　09:00　09:00
09:00

Specialties

Conferences　Seminars　Workshops　Product launches
Team-building activities　Business meetings　Networking events
Trade shows and exhibitions

User Profile: manage bookings, booking history, account settings

joytop

Input phone number:

Code
+998

Number

Continue

Registration and Authentication: using phone number

4.1 Functional Requirements

- Venue Moderation: venue owners can add new properties through the user dashboard, which undergo moderation before publication.
- Admin Panel: management of users, venues, bookings, and financial transactions.
- Payments via the platform: support for online payments with automatic commission calculations.
- Notifications: notification system for users and venue owners about bookings, changes, and promotions.
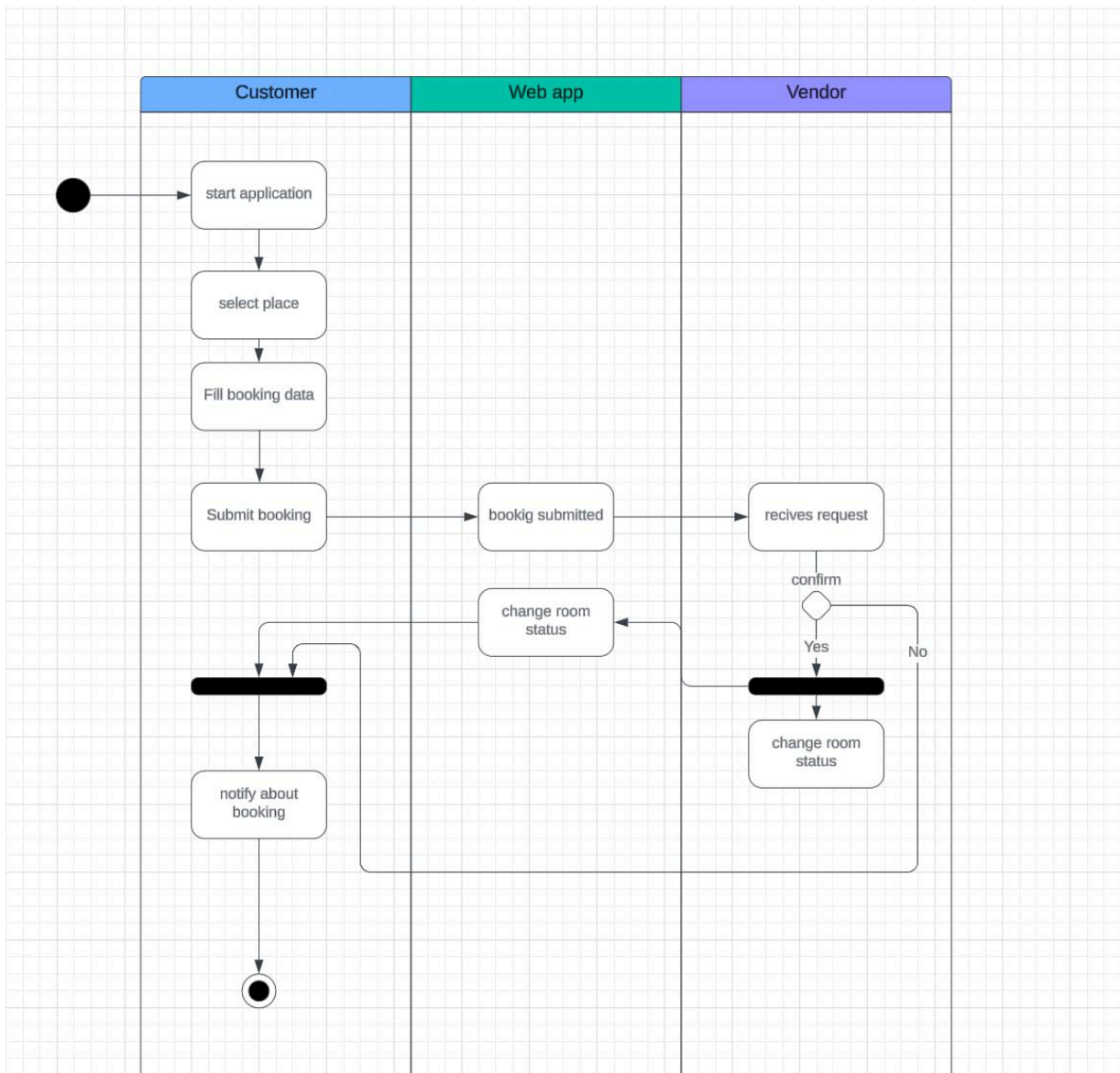
4.2 Application Structure Requirements

- Booking management and venue administration are only available to registered users.
- Support for reviews and ratings on each venue.
- User Profiles: Both venue owners and regular users will have profiles where they can update personal information, manage bookings, and see activity logs.

4.3 User Classes

- Guest: can view venues but cannot book.
- Registered User: can book venues, manage their bookings, and leave reviews.
- Venue Owner: can add and manage their venues, accept and manage bookings.
- Administrator: has access to all data, can manage users, venues, and moderation.

5. Project Diagram

Caption: The most basic user client path of our platform.

6. Integrations

- Billing system integration planned.

7. Additional Information